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EXAMINER

BUTLER, DOUGLAS C

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n N .

09/939,363

Applicant(s)

REINER ET AL.

Examiner

Douglas C. Butler

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-- The MAILING DATE of this communicati n appears on th c ver sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 9-15 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-15, 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 19-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. The amendment filed Nov. 17, 2003 has been entered.
2. Claims 1-8 and 16 have been canceled.
3. Claims 9-15 and 17-18 are allowed.
4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 19-20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, Jr. (5161579) in view of Long, Jr. (3120962), both of record.

Anderson, Jr. discloses air valve 10, air spring 2, rod 4, axle support 3 and actuator in the vicinity of 45 (Fig. 3).

Anderson, Jr. discloses<sup>S</sup><sub>A</sub> a manual control 9 operated by the vehicle operator (as recited in instant claim 19, line 9) which control 9 of Anderson, Jr. is connected to the

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actuator in the vicinity of 45 of Fig. 3 of Anderson, Jr. which actuator adjusts the ride firmness in an automatic manner once the operator engages control 9. Anderson, Jr. does not state that manual control 9 is a switch.

However, the secondary reference to Long, Jr. discloses a manual control switch 109 for adjusting the firmness of the ride by way of air bags or air springs at 20, 20a.

It would have been obvious to replace the manual switch of Anderson, Jr. with a control switch similar to 109 of Long, Jr. since such modification involves replacing one well known type of control with an equivalent control.

7. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, Jr. in view of Long, Jr. as modified above further in view of GB2136141 to Strange, of record.

Although Anderson, Jr., lack the indicating device of instant claims 21-23, it would have been obvious to provide Anderson, Jr. as modified, with an indicating device or display for indicating the condition of the assembly as taught by GB2136141 to Strange. Note visual display and switch arrangement G, F, E, etc. of GB2136141.

8. Claims 19-20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, Jr. (5161579) in view of Heider et al (4733876), of record.

Anderson, Jr. (5161579) discloses the invention substantially as claimed except for the switch feature.

Heider et al disclose at column 2, lines 23-35 the following statement:

"A control system is provided for controlling the pressure within the air bag. The control system includes electrical switches which can be mounted within the vehicle

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cab. The switches are connected to various valves in the pneumatic system which supplies the air bag. The control system can be placed in an automatic mode which employs height control valves for maintaining a constant distance between the vehicle frame and the axle in response to variations in load distributions within the vehicle. The control system can also be placed in a manual mode for leveling the vehicle when it is parked on an uneven supporting surface.”

It would have been obvious at the time the invention was made to modify the Anderson, Jr. structure to replace the manual control 9 with an electrical switch and accompanying air bag pressure adjustment structure as taught by Heider et al for permitting the individual within the cab to remotely adjust the firmness or hardness in the suspension air bags to suit the desires of the occupants of the vehicle.

9. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, Jr. as combined with Heider et al (4733876) in paragraph 8 above further in view of GB2186141 to Strange, of record.

Although Anderson, Jr. as modified lacks the indicating device of instant claims 21-23, it would have been obvious to provide Anderson, Jr. as modified with an indicating device or display for indicating the condition of the assembly as taught by Strange (GB2136141).

10. Applicants' arguments in the response have been considered but are not convincing. The examiner has the impression that applicants consider permitting the vehicle operator in a vehicle cab or tractor to remotely control the spring firmness by the filling and release of air pressure in a vehicle air suspension to be patentable. The

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examiner also has the impression that prior to the instant invention artisans in the art only recourse to changing the spring air pressure would be to stop the vehicle, leave the tractor or cab and adjust the air bags by visiting the air bags directly at the air bags location. The prior art of record is contrary to applicants' conclusions. Applicants' contribution is not as far reaching as applicants argue. Consider the undue breadth of at least claim 19 in view of the above and additionally Fischer (3559688). Fig. 1 of Fischer<sup>5</sup> discloses adjusting the firmness of a vehicle ride by way of a manual control 25 in a vehicle cab as per column 1, beginning at line 69 which states:

"Air from the pressure protection valve is supplied by means of a pipe 16 to a conventional leveling valve 17 on the frame 15. The valve 17 is responsive to displacement of the actuating lever 18 thereof by changes in displacement of the frame 15 relative to the axle due to changing loads on the frame. The lever 18 is connected by means of a link 19 to an arm 20 which is attached to the axle or to a spring bolster 21 in any desired way. The discharge pipe 22 from the outlet of the leveling valve 17 is connected to a control and dump valve 23 which, as described hereinafter, controls the supply of air to, or discharge of air from, the air spring 13 through a pipe 24. Control of the dump valve 23 by the operator is achieved by means of a valve 25 in the cab of the vehicle which receives air under pressure from the reservoir 10 or other pressure source through a pipe 26."

11. In order for applicants to better appreciate what applicants are and are not entitled to obtain a patentable on, note the following variety of documents intended to convey to applicants the exceedingly broad scope of claim 19+.

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12. Note Yale (5873581) which is directed to remotely adjusting ride firmness by way of a manual control in the vehicle cab. See Figs. 1-11 of Yale and the following statement from column 7, beginning at line 10 of Yale:

"The air bellows 18 and 29 are connected to an air supply means 35 shown as air lines 22, 27 and 32 by such as tubular means such as metal, rubber, plastic or a combination of these types of hoses or pipes. The air supply means uses a manual valve 33 and gauge 34 by which the operator or truck driver in the cab 10 can manually adjust the air pressure applied to the air bellows as frequently and in any manner desired. The air source (not shown) is typically a compressor and reservoir driven by the truck engine or an independent power plant. The air supply means 35 is typically located in the cab 10 close to and in a convenient position for the truck driver and receives air through a hose or pipe to the reservoir. The air supply means is designed so that valve 33 sets and maintains a constant pressure on the air bellows which pressure is shown by gauge 34. Air pressure up to about 100 pounds per square inch gauge (psig) can be used in the air bellows of this invention and the air volume requirements are very low."

13. Consider Fleener et al (5375880) as to the well known technique of adjusting ride firmness of an air suspension remotely. Column 1, lines 32-39 state that:

*pr3*  
"It has become general <sup>practice</sup> ~~practice~~ to equip such vehicles with switch operated by the driver, which switch opens and closes solenoid operated valve connected to the pneumatic system. Air is vented from the selected air bags when the valve is open, and

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maintained within the air bags when the valve is closed. When closed, the air supply system of the vehicle will pressure."

See column 4, lines 19-28 of Fleener et al which state that the "present invention comprises a control system 10 for governing a dump valve 1 which regulates inflation of vehicle air bags 2, these conventional components being seen in Fig. 3. Air bags 3 are not controlled by dump valve 1, and consequently remain inflated. Dump valve 1 is controlled by a switch S located in the driver's cab C of a vehicle V. Dump valve 1 is constantly supplied with pressurized air, represented by supply line 4, controlled by a leveling valve (not shown) carried on vehicle V."

14. Consider Corey et al (5052713) wherein column 2, lines 48-64 state that the pneumatic suspension provided by air bags 114, 114a is controlled by a cab switch to adjust the pressure in the air bags.

15. Gladish (4335901) discloses a control device 42 by way the operator of the vehicle can adjust the firmness of air bags 14.

16. Hamilton et al. (4783089) disclose a control panel 30 within a vehicle cab for operation by the vehicle operator for adjusting the firmness of air bags while in motion remotely from the air bags. Note column 4, lines 59-68, column 7, lines 52-68, column 8, lines 14-46 and the Abstract, the last two lines.

17. Applicants' attention is directed to Fig. 2 of Buhl (3592485) showing a dashboard 28 with a manual control 25 which permits the vehicle operator to remotely control the ride firmness of the air suspension at 20 (Fig. 1 of Buhl). See column 3, lines 30-60 of Buhl which gives a clear description of the well known remote control feature.



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18. Note Figs. 1-4 of Merkle and column 3, lines 16-20 wherein Merkle states that:

“As should be apparent, the valve 76 can be located on the instrument panel in the cab 20 so it can be conveniently operated by the vehicle operator for inflating or deflating the air spring 50” to adjust ride firmness.

19. Applicants' attention is directed to Shoebridge (3917307) which clearly discloses a control 26 located in close proximity to the vehicle operator to remotely control the suspension. Note Figs. 1, 2 of Shoebridge.

20. Graham, Jr. (3592226) may be of interest to applicants as a typical air pressure gauge 13 exhibiting an indication to the driver or cab located driver of the condition of air suspension 11.

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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22. Inquiries concerning this office action should be directed to the examiner handling this application at 703-308-2575, Exmr. Butler.

 2/13/04

DOUGLAS C. BUTLER  
PRIMARY EXAMINER

Butler/vs  
February 9, 2004

